



# Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's  
environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

Todd Parfitt, Director

February 1, 2013

Mr. Tim Brown  
Environmental Services Supervisor  
Solvay Chemicals, Inc.  
P.O. Box 1167  
Green River, WY 82935

## CERTIFIED -RETURN RECEIPT REQUESTED

Re: Permit Application No. AP-13083

Dear Mr. Brown:

The Air Quality Division (AQD) of the Wyoming Department of Environmental Quality has conducted an initial completeness review of your application to modify the Green River Soda Ash Plant with the installation of a 254 MMBtu/hr natural gas-fired package boiler. Before the application can be deemed complete, the following needs to be clarified or provided to the Division:

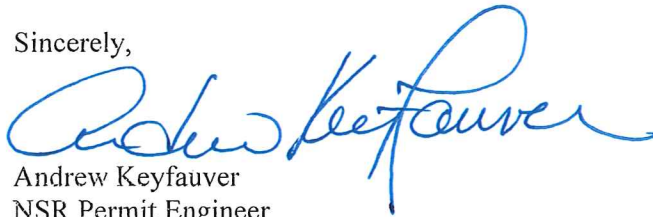
1. The Division requests that Solvay Chemicals, Inc. provide, for existing sources where the projected actual emissions were utilized instead of the potential-to-emit (PTE) to avoid PSD, a monitoring methodology for these pollutants ( $\text{SO}_2$ , Lead and Fluorides) so that the Division may establish appropriate permit conditions, as necessary. Solvay Chemicals, Inc. also has the option to demonstrate that PSD review would not be triggered if the PTE was utilized in lieu of projected-actual emissions for these pollutants.
2. The Division requests that Solvay Chemicals, Inc. provide a demonstration that the other NSR Regulated Pollutants not addressed in the application (e.g.,  $\text{H}_2\text{SO}_4$ ) do not trigger a significant emission increase or a significant net emissions increase.
3. The Division requests that Solvay Chemicals, Inc. provide a manufacturer's quote or other information to support the costs utilized in the BACT analyses for SCR on the proposed boiler.
4. The application indicated that SCR systems are capable of achieving a  $\text{NO}_x$  reduction of 70 to 90 percent. However, the BACT analysis only looked at an approximate  $\text{NO}_x$  reduction of 70 percent. The Division requests the Solvay Chemicals, Inc. examine the cost to control of reducing  $\text{NO}_x$  emissions up to 90 percent (from baseline) as SCR systems are capable of achieving this reduction.
5. The Division requests that Solvay Chemicals, Inc. propose an averaging period (i.e., 3-hr average, 24-hr average, 30-day rolling average, etc.) for the pollutants emitted from the boiler. In addition, the Division requests that a demonstration that the boiler can comply with the proposed emission limit(s) during periods of startup and shutdown. If the boiler cannot comply with the proposed limit during startup and shutdown, Solvay Chemicals, Inc. will need to provide a BACT analysis for that period of operation for the emission unit.



6. The Division requests that a BACT analysis for SO<sub>2</sub> emissions be provided for the proposed boiler as Solvay Chemicals, Inc. must demonstrate that the proposed boiler will utilize BACT under Chapter 6 Section 2(c)(v) for this pollutant.
7. The Division is obligated to ensure that Solvay Chemicals, Incorporated's proposed project will align with the objectives in the State of Wyoming Executive Order 2011-5 for Greater Sage Grouse Core Area Protection. Therefore, the Division requests that Solvay Chemicals, Inc. provided a demonstration that the proposed project will meet the objectives of the Executive Order.
8. The Division has reviewed Solvay's approach to the 1-hr NO<sub>2</sub> modeling analysis; specifically, the methodology used in determining what regional NO<sub>x</sub> sources would be included in the WAAQS modeling for 1-hr NO<sub>2</sub>. For consistency, the Division would prefer to see all regional sources in the modeling domain included in the WAAQS modeling for 1-hr NO<sub>2</sub>, and plans to include all sources in the technical review for NO<sub>x</sub>. The Division can provide Solvay the emission sources from the regional facilities not included in the original model run to supplement the 1-hr NO<sub>2</sub> modeling for this project.

If you have any questions regarding this letter you may contact me at (307) 777-7045, or you may contact Don Watzel at (307) 777-8576.

Sincerely,



Andrew Keyfauver  
NSR Permit Engineer  
Air Quality Division

cc: Tony Hoyt